# SOUTH CENTRAL UTAH TELEPHONE ASSOCIATION, INC. P.O. Box 555 Escalante, Utah 84726

William F. Caton, Acting Secretary Federal Communications Commission Washington, D.C. 20554

**Re:** CC Docket No. 94-102

**Broadband PCS Station KNLG223** 

BTA 392 (St. George, Utah) Fifth Quarterly Report

Dear Mr. Caton:

This report is filed pursuant to the Commission's *Fourth Report and Order*, in CC Docket No. 94-102, released December 14, 2000.

South Central Utah Telephone Association (South Central), a rural area telephone cooperative, is the licensee of the referenced station in the Broadband Personal Communications Service. South Central serves the St. George, Utah BTA on the PCS F-block. We commenced service with 12 original cell sites and two repeater sites. The majority of the populated land area outside of the main population areas of St. George and Cedar City is rural and will be costly to build out.

Our second construction phase demonstrated our commitment to the rural areas of our BTA by including six additional rural cell sites and three repeater sites. We began last year to increase our commitment to these communities by working to build five new cell sites. This third build out project has found us addressing critical capacity issues and requirements within the St. George and Cedar City areas.

This project began many months ago when we realized we needed to reconfigure and enhance our first phase areas, to address some business threatening performance issues related to our capacity design. We realized there was no choice whether to fund this project, if we were to remain a player in this very competitive market place. We are adding five sites in the original coverage areas, with the hope of final site completion and network optimization being completed prior to the summer months.

Although we satisfied our buildout requirements, there are many small communities that have yet to be served. Remaining true to our "cooperative roots", we

still hope to expand our service further into the rural areas as the market and funding allow

We have been following the progress of the Wireless TTY Forum and working with our switch supplier, Nortel Networks, at its Parker, Colorado location, toward effecting compliance with the Commission's requirements for providing TTY access to E-911 calling systems over our PCS facilities. Our progress as of March 31, 2002 is summarized below using the outline at paragraph 17 of the *Fourth Report and Order*:

### Progress as of March 31, 2002:

### **Development Activities**

- 1. Network infrastructure software development South Central completed its last switch upgrade at the end of 2000 on a scheduled PCL Simplification program (software and hardware upgrades) that allows licensees to keep up with product loads on a scheduled basis. We also ordered an additional upgrade of our wireless switch, prior to the end of 2001, which was completed March 06, 2001 (Nortel "K-Date").
- 2. Handset development and testing plans South Central purchases its handsets from many of the vendor outlets. We make every effort to stay current with the latest handset offerings. In the past, however, we have had limited choices due to exclusive agreements between some of the handset manufacturers and some of the larger nationwide carriers, or due to large quantity orders place by the big carriers, which depleted supplies.
- 3. Beta testing and lab testing South Central is a small carrier operating on the F-block. While we have no lab testing facilities of our own, we follow the testing and development done by the manufacturers and the larger carriers. Then, we field-test the approved units when they become generally available. We will rely on advice and approved setup instructions provided by the manufacturers and suppliers when placing new equipment into service.

For example, South Central has tracked the results of tests, based on manufacturer responses to our questions (attached and made a part of 4, below) and will rely heavily on the outcome of tests like these in the future:

We have been advised that Nortel Networks has completed internal testing using prototype mobile handsets from only a few vendors, which have shown positive results; and that Nortel does not anticipate performance issues with any other vendor's handsets once they come available.

Nortel has also used some customers as "V.O.s" (Verification Offices) and has encouraged vendors to submit their products to Nortel's own test facility.

According to information we have received from Nortel: The verification process for NBSS 10.1 with the customer began in June 2001. Nortel had recommended that operators engage their chosen CDMA TTY handset vendor during the verification process or VO process to participate in interoperability testing with the Nortel solution. As of November 1, 2001, TTY capable handsets had recently been acquired by all of Nortel's CDMA service provider VO partners. Due to the lateness of the terminal's availability, Nortel was unable to verify the interoperability of the TTY feature with the entire NBSS10.1.1 load in time for the planned GA date. Despite the lack of final verification, the TTY feature's software remains in the GA load; however it has been turned off to protect the integrity of the entire software load. Since that time Nortel Networks has created the "maintenance" NBSS load, NBSS 10.1.2, that will correct some minor performance issues. TTY fixes are also included." Nortel claims that all verification activities are dependent upon the availability of commercial grade CDMA TTY/TTD handsets.

4. Release and general availability to carriers of network infrastructure software – The software release required for digital TTY support on our Nortel DMS-100 switch is LWW-00007 and the Nortel Base Station Controller equipment requires NBSS 10.1. As of March 31, 2002, we are at the LWW-00007 software level on our DMS-100 and NBSS 9.1 on our Base Station Controller.

On June 8, 2001, we were at the LWW-00006 software level on our DMS-100 and NBSS 8.1 on our Base Station Controller. Nortel notified us that the dual switching platform we are currently using is going to be phased out and replaced by two completely separate wireless and wireline switch platforms, thereby requiring us to purchase a new separate wireless switch. The switches will operate using the standard landline and wireless software packages, which we will be able to upgrade and operate independently of one another. This will supposedly offer the advantage of upgrade flexibility but probably have the drawback of higher upgrade costs and higher operating and maintenance costs to the company, due to the additional expense of maintaining two front-end processors and additional hardware. Details of the costs to reach the new platform are not yet known. To date, we have been unsuccessful in our efforts to obtain a price quote from Nortel for the new switch that will have TTY access capability. The prospect of significantly greater costs causes us grave concern due to our very limited budget.

With the new platforms we will be moved to, the software release required for digital TTY support on our Nortel DMS-100 Wireless Switch is MTX09 and the Nortel Base Station Controller equipment will still require NBSS 10.1.

As of December 31, 2001, we were still providing services to both landline and wireless customers on a single DMS-100 Switch platform, which uses a combination

landline and wireless software load. We remain at LWW0006, which is the equivalent software level of MTX08 Wireless and LEC10 Landline software loads for our DMS-100 and NBSS 8.1 on our Base Station Controller.

As of March 31, 2002 we have upgraded to LWW0007, which is the equivalent software level of MTX09 Wireless and LEC13 Landline software loads for our DMS-100 and NBSS 9.0.6 on our Base Station Controller.

It is significant that South Central never received the NBSS10.1.1 load, which South Central had anticipated would be delivered, based on its discussions with Nortel sales and engineering prior to year-end 2001. This was due to several reasons. Nortel first quoted the switch upgrade without an NBSS upgrade. In the past, the NBSS upgrades followed to support the switch upgrade. South Central was concentrating mainly on the switch upgrade, believing that the NBSS load would follow, since the switch upgrade was, in South Central's mind, the level we needed to achieve for TTY compliance. During the quote process, the NBSS 10.1 with LWW07 was not available until October 12, 2001 and a subsequent fix, which was to be LWW07 on NBSS 10.1.2, was not to be generally available until January 25, 2002. South Central was talking with Nortel Sales about achieving TTY compliance, however, it appears the Nortel quotation department was concentrating on quoting the generally available NBSS level. We loaded the quoted NBSS9.0.6 in January 2001, but the fact slipped by us, that we were not entirely compliant, or that the required NBSS10.1.2 load needed for TTY was not on track for South Central at that time.

Upon making another compliance check in preparation for this report, we discovered this fact, and South Central immediately requested a quote for the required NBSS load. South Central has not yet received that quote; however this process has revealed additional information and conditions of concern that were previously unknown to South Central.

Nortel responded to our prior requests regarding their efforts toward TTY testing and compliance, On July 10, 2001 and October 12, 2001, with a document titled "CDMA\_TTY\_response\_ATIS.doc". We later requested and received their latest correspondence on, March 28, 2002, however, we're waiting to receive further TTY-related correspondence from Nortel, due to some confusion over our current compliance question. Although they addressed the following questions and issues, some questions still exist as to whether Nortel will be able to provide and support TTY/TDD using the combination of NBSS10.1.2 with MTX09 software as previously claimed.

The information below is Nortel Networks' January 09, 2002 plans to comply with FCC's TTY requirements for CDMA service providers as received on March 28, 2002. It was titled <<CDMA\_TTY\_Nortel\_response\_Jan09\_02.doc>>.

Enclosed is information regarding Nortel Networks' plans to deliver TTY solutions to market in support of CDMA service providers ability to meet FCC TTY milestone objective.

 What is the status of TTY/TDD network infrastructure software/hardware development and testing?

Nortel response: Nortel Networks' development and product test is based on current standards: IS-127-2 (EVRC) & IS 733-1 (13K Vocoder). New revisions of these standards namely IS-127-3 (EVRC TTY) & IS-733-2 (13K TTY) have been published as of September 2001. Nortel Networks plans to support this new addendum to the standards in our next scheduled software release; MTX11/NBSS11 is scheduled to be GA Q4 2002. Operators will be able to deploy the Nortel Networks TTY solution based on the current standards IS-733-1, IS127-2 to meet the FCC deadline for implementation. Nortel Networks has completed internal testing using prototype mobile handsets from only a few vendors, which have shown positive results. Nortel Networks does not anticipate performance issues with any other vendor's handsets once they come available.

 What is Nortel Network's TTY/TDD plans to test and confirm solution performance including additional tests referenced in Sections 20-23 of the FCC 4th Rule and Order 12-14-2000?

Nortel response: Regarding Section 20-23, Turbocode and HiSpeed is each a proprietary feature of TTY device vendors Ultratec and Ameriphone, respectively. Due to the code being proprietary Nortel Networks will not test or support these enhanced solutions. Standards are designed to avoid supporting proprietary methods, and Nortel Networks is not aware of any effort to standardize these proprietary features. The FCC does not require vendors to support TTY enhanced signaling.

What are the hardware baseline and software baseline to support CDMA TTY/TDD functionality?

#### Nortel response:

Regulatory solution required	CDMA HW/SW baseline	
TTY/TDD	MTX09 SW (DMS-MTX)	
	NBSS10.1.2 SW (BSS)	
	TTY capable handsets (3 <sup>rd</sup> party)	

• What **software baseline** must the MTX be running in order to upgrade to MTX10 and/or NBSS10.1.1?

Nortel response: The MTX is required to be running MTX09 in order to upgrade to MTX10 and/or NBSS10. Nortel Networks has always maintained an allowance for CSP or Communication Services Platform "jumps" from MTX release to MTX release. The MTX has received significant changes due to moving to a multi-processing architecture. It is because of the new CSP14 layer of the MTX10 release that an MTX cannot upgrade safely from MTX08 directly to MTX10.

 What is the Network infrastructure software/hardware planned general availability dates that support the deployment of this regulatory feature?

Nortel response: In order to allow Carriers to comply with the FCC's June 30, 2002 requirement for TTY/TDD implementation, Nortel Networks current plan for the enabling software full availability is:

Software load	CDMA SW general availability	
MTX09	Now Available	
NBSS10.1.2 with MTX09	January 25, 2002*	
MTX10 CDMA – not reg'd	December 07, 2001 -Now Available	

- \* All CDMA customers scheduled for upgrade show full upgrade completion prior to June 30, 2002
- How is the software/hardware for TTY/TTD subscribers provisioned in the network?

Nortel response: The provisioning for TTY must be done the same way as for the voice subscribers.

• What is the **schedule for deployment** of the software/hardware in the network?

Nortel response: The minimum baseline software requirements for this functionality are given above. For questions related to scheduling its deployment into a carrier's network, please contact Nortel Networks Product Deployment. All those CDMA customers who have ordered and scheduled for NBSS10.1.2 upgrade are currently showing plans for full network NBSS upgrade prior to June 30, 2002.

Nortel Networks recommends that all customers who have not yet ordered and scheduled upgrade to NBSS10.1.2 contact Nortel Networks to ensure software upgrade prior to June 30, 2002.

 For TTY/TDD what are the plans to work with any wireless carrier to perform end-to-end customer tests, and when will this occur?

Nortel response: The verification process for NBSS 10.1 with the customer began in June 2001. Nortel had recommended that operators engage their chosen CDMA TTY handset vendor during the verification process or VO process to participate in interoperability testing with the Nortel Networks solution. As of November 1st, 2001 TTY capable handsets had recently been acquired by all of our CDMA service provider VO partners. Due to the lateness of the terminals availability. Nortel Networks was unable to verify the interoperability of the TTY feature with the entire NBSS10.1.1 load in time for the planned GA date. Despite the lack of final verification, the TTY feature's software remains in the GA load, however it has been turned off to protect the integrity of the entire software load. Since that time Nortel Networks has created a "maintenance" NBSS load, NBSS 10.1.2, that will correct some minor performance issues. TTY fixes are also included. Any customer in possession of the TTY hardware/software prerequisites may contact Nortel Networks to become a First Market Application (FMA) candidate for this improved TTY solution within the NBSS10.1.2 maintenance load. Nortel Networks forecast for this improved TDD feature's scheduled full verification is planned to begin in mid December time frame with our lead customers. Completion of external end-to-end customer testing of TTY/TDD is scheduled for January 19, 2002 in time to be part of the scheduled GA date of the NBSS10.1.2 maintenance release of which this improved TTY/TTD solution is to be a part.

All verification activities are dependent upon the availability of commercial grade CDMA TTY/TTD handsets.

What are Nortel Network's plans to test their own or other vendor handsets with your switch solution?

Nortel response: Nortel Networks provides only infrastructure for wireless networks. Nortel Networks does not provide mobile handsets. Nortel Networks infrastructure software, namely NBSS10.1, was available in June 2001 for scheduled external end-to-end customer testing. This testing activity was scheduled to complete in advance of the Dec 31, 2001 FCC requirement. Our lead verification customers did not acquire commercial grade TTY handset until much later in the test window. Nortel

Networks recommends that the operator engage its handset vendor(s) in order to respond to the FCC regarding handset availability.

Operators are encouraged to request their handset vendors to test their commercial grade CDMA TTY capable handsets in Nortel's Wireless Interoperability Test Lab.

Please contact Cher Bruce for scheduling TTY testing in the Nortel Networks Wireless Interoperability Test Lab, where testing is based on current published standards (Phone: 972-684-2299; Fax: 972-684-3881; csbruce@nortelnetworks.com)

#### Contacts:

Product Marketing	MTX10/NBSS10.1 SW	Kurt Raaflaub	(972) 685-2971
Product Management	CDMA TTY/TDD	Maniam P	(972) 685-7203
Regulatory	E911Ph2&TTY/TDD	Charles Spann	(903) 852-6798
Product Deployment	CDMA NBSS SW	Mark Schwarzer	(972) 685-5851

- 5. Availability to carriers of full acceptance test units See 2 above. We do occasionally receive some units for field trial and testing. However, no units for testing TTY compatibility have been made available to us up to this time.
- 6. Efforts toward achieving digital wireless solution compatibility with enhanced TTY devices South Central worked toward another switch upgrade with Nortel, without the budgetary benefit of the previously offered PCL Simplification. We have also continued to follow the progress of the TTY Forum, through their email broadcasts.

As of September 24, 2001 South Central received a budgetary quotation to move its existing platform to LWW00007. At that time we were informed that the "PCL Simplification Program" mentioned above is no longer available and that we will be receiving a straight standard upgrade price. Total costs of this upgrade were unclear at the time. The preliminary pricing indicated costs ranging as high as nearly one quarter of a million dollars, if we have to upgrade our 1997 processor. Pricing details did not specify whether the Base Station Controller upgrade to NBSS 10.1, as specified in 4 above, was included.

We had hoped that last quarter's price quotation from Nortel included the Base Station Controller upgrade from NBSS 8.1 to NBSS 10.1 upgrade, but this was not the case. This is disappointing since we are making efforts to address other capital-intensive issues, in connection with providing this competitive service. However, South Central is committed to upgrading its DMS-100 Wireless platform.

South Central and Nortel met on a conference call, on November 20, 2001, to further discuss this issue. South Central made a financial commitment to move from its current LWW006 platform load to the LWW007 platform, which is required for TTY.

On November 21, 2001, South Central and Nortel held a teleconference-engineering meeting to work through the job details and scheduling. The following schedule was set for the Nortel upgrade, which will move us toward achieving TTY compliance:

Initially, we agreed Nortel would ship before the end of December 2001. Our "Delivery Date" of the Nortel equipment was set for 12-21-01. The "Installation Date," when Nortel plans to begin work, was set for 01-11-02. The Nortel "Application Date" for the Software Load was set for 02-13-02. The "K Date," or "Cut Over Date" of all hardware and software was set for 03-22-02.

Scheduling was later firmed up between Nortel and South Central. Some dates were moved back by several days, in order to accommodate what South Central felt was more appropriate time for loading and testing. South Central has a very limited quantity of workers to help run the day-to-day operations and maintenance activities. We felt it was more in the public interest to allow enough time to help avoid costly mistakes that could jeopardize service quality, without jeopardizing the June 30 deadline.

# SITE DELIVERY CHECKLIST & ACCEPTANCE OF SCHEDULE PANGUITCH, UT COEO: H3U350 LOADID: 438390

# SOUTH CENTRAL UTAH TELEPHONE LWW00006 to LWW00007

	Action	Responsibility	Date
1	Site Delivery Checklist sent	Software Coordinator	01/08/02
2.	**Confirm receipt of preliminary tapes & documentation	Telco responsibility	01/24/02
3.	Start PM loading	Telco responsibility	01/24/02
4.	Tabaudit executed and errors corrected within 30 days of application	Telco responsibility	02/05/02
5.	Confirm PM loading has been completed	Telco responsibility	02/13/02
6.	Confirm availability of 2 data lines	Telco responsibility	02/22/02
7.	10 day pre-check performed	Pre-check eng/Nortel	02/22/02
8.	Send 2 copies of test image tape (DMS500, Wireless.LET-to-LEC.VO)	Telco responsibility	02/20/02
9.	Tabaudit issues corrected	Telco responsibility	02/22/02
10.	***Site receives final tapes & documentation	Telco responsibility	02/26/02
11.	MS is preloaded	Telco responsibility	02/26/02
12.	Final pre-check performed	Pre-check eng/Nortel	03/01/02
13.	Application Schedule Date at 8:00 p.m. (20:00) site time	S/W Coor. & Telco	03/05/02
14.	SWACT Date	Telco responsibility	03/06/02
15.	Site FCC REPORTABLE YES/NO =	Telco responsibility	

#### \*\*\*\*\*\* GUIDELINES FOR FCC REPORTABLE SITE

\*\*\*\*\*\*\* If any of the criteria apply to this office, it would be FCC REPORTABLE

30,000 or more total lines

Serves a Major Airport

**FAA Facilities Serving Major Airport** 

**Major Military Installations** 

**Key Government Facilities** 

**Nuclear Power Plants** 

Is this a 911 Tandem Office

As of March 31, 2002, South Central is still waiting for a quotation to take us to NBSS 10.1.2.

During the work done with Nortel in September, it was unclear that the quotation would not satisfy the TTY requirement and that the compliant NBSS load would not be available from Nortel until January 25, 2002.

Upon discovering this fact, we asked for a quotation of this software component. During the last quote discussion with Nortel, it became unclear as to whether NBSS10 would work with MTX09, as was previously claimed by Nortel. It was explained to South Central that the MTX number and NBSS number normally coincide with each other. For example, MTX09 and NBSS09 are loaded together and likewise, MTX10 would normally match up with NBSS10. It appears that some limited software patching and support are done on a temporary basis, in the event MTX or NBSS software is loaded without matching numbers.

At the time of this writing, we are still waiting for firm pricing and confirmation on the MTX / NBSS compatibility question. We've been advised that, contrary to the previous information Nortel provided, which stated TTY would be done in MTX09, it now appears that Nortel will only support it for the next 30 days. If this is the case, South Central is now facing a requirement to move to a true MTX10.

Due to the pending DMS-100W split issue which Nortel and South Central are still working on, the need for a waiver of the current June 30, 2002 deadline for achieving TTY compatibility seems inevitable. South Central feels a waiver, if necessary, would be justified for the following reasons:

1 - South Central has made a good faith effort toward compliance. Its switch upgrades required a significant financial effort in order to get this close to compliance. If it

were only an issue of upgrading to the NBSS10.1.2, there is a strong chance that South Central would meet the June 30 compliance deadline.

- 2- South Central still has no quotation to move to the MTX10, which will split its switch platform into two separate switches. Without full disclosure of what the MTX10 upgrade path will mean financially, coupled with the uncertainty of having only 30 days of support on the MTX09 / NBSS 10.1.2 software split; South Central feels it would be less than prudent, in a competitive wireless market, to commit either way.
- 3 South Central is extremely concerned what the costs will be to its business case and to customer service.
- 4 If South Central is required to absorb the cost of this unforeseen MTX10 upgrade too quickly, we would be seriously concerned about our very survival.
- 5 It appears that PSAPs are having TTY compatibility issues when testing has been done with their existing equipment. Not all PSAPs may be ready by the June 30 deadline. PSAPs should be allowed to work through all of their problems, to find reliable choices for their needs. The need for meeting deadlines can help to stimulate new ideas. However, it can also force the sacrificing of reliability by implementing hasty or unwise solutions.
- 6 It is important to provide communications services ubiquitously where possible and practicable. However, penalizing a carrier in these circumstances in the name of regulation to benefit a select group of users, would not serve the best public interest in rural or any other part of America.

## **Testing and Deployment Activities**

- 7. Carrier coordination of testing with PSAP We are continuing work with QWEST and the related PSAPs within our service area to finalize and finish various landline projects. As of March 31, 2002, we have received no requests for E-911 Phase I or Phase II or TTY compatibility testing.
- 8. Carrier testing activities, including field testing, consumer end-to-end testing and other necessary tests As described above and in our filing on January 14, 2002.
  - As of March 31, 2002, no correspondence has come forth from handset manufacturers to inform South Central of any changes or enhancements available for our testing.

- TTY/TTD Forum – 21 was held on March 5, 2002 at the ATIS Conference Center in Washington DC.

Nortel's Charles Spann noted that customers are testing with TDMA and CDMA solutions. He reported that they expect to meet the deadline, depending on the resolution of the PSAP issue.

Sprint's Scott Freiermuth reported that Sprint has four network vendors and noted that Nortel is active in one market. Handsets have been tested for five vendors, and interoperability testing for infrastructure vendors has been completed in the lab. Mr. Freiermuth explained that problems have been isolated to specific vendors. Sprint has yielded low error rates during all testing, and they also expect to meet the deadline depending upon the resolution of the PSAP issue.

Toni Dunne explained that she has been working closely with the TTSI Incubator Group to ensure contacts for and communications with various PSAPs are established to help resolve the TTY/PSAP incompatibility issue. She also mentioned that NENA will join the telecommunications industry for the ex parte scheduled for March 12, 2002.

Jim Turner explained that the TTSI investigated which standards PSAP manufacturers were building to and found PN1663, a NENA project number. He noted that TTSI looked to see if the PSAPs were actually building to this standard and found that they were building to the TIA/EIA 825 and 840 standard for modems. He explained that the PSAP problem is complicated by the sheer number of PSAPs in the country, which use different methods for TTY detection. Mr. Turner explained that this is a very complex problem that includes liability issues for the PSAPs, PSAP manufacturers that are no longer in existence, and problems with the standards. He explained, however, that TTSI has been working with PSAP manufacturers to determine the best resolution for the problems before the June 30, 2002 deadline. He noted that they have been testing with 30 out of the 33 PSAP types identified by TTSI.

Ed Hall noted that the TTY Forum has always worked with the three largest consumer-oriented TTY Manufacturers: Krown, Ultratec and Ameriphone, but that TTSI has identified numerous other TTY Manufacturers and is now trying to work with those manufacturers. In addition, TTSI is attempting to determine whether or not the TTYs are compatible with the relevant standards. Mr. Hall explained that the telecommunications industry is facing an embedded base of TTYs, some of which were manufactured by companies that no longer exist. In addition, Mr. Turner noted that when he contacts PSAPs, they often are unsure of what kind of equipment they are using.

Mr. Hall explained that the message that would be taken to the FCC during the meeting next week would be that the telecommunications industry is ready to launch

service to TTY users by the deadline of June 30, 2002, but that some problems occurred when testing with PSAPs.

Mr. Hall noted that the group would be suggesting that the launch by the June 30, 2002 deadline would allow for conversations with friends and families, but that there be a phase-in of 911 capabilities for TTY compatibility because of the problems with PSAPs. In addition, the TTSI would be asking the FCC who is responsible for the problems with the PSAPs. The telecommunications industry has shown due diligence regarding this issue, and the PSAPs need to come forward and meet the telecommunications industry half way. Furthermore, the group would be explaining that there needs to be some standardization process for testing with TTYs. If there is no way to determine whether TTYs are standards compliant, the wireless industry will continue to encounter testing problems.

- As of March 31, 2002, no handset testing can be done, since South Central's switch doesn't support TTY (See 2 and 5 above). We can't make any assessment at this time, and continue to rely on industry and pre-market testing.
- LWW007 (MTX09) was reached on March 06, 2002. However we have not yet reached the NBSS10.1.2 software load on our Base Station Controller. As noted above, there is still some confusion as to whether Nortel will support NBSS10.1.2 with the MTX09 load without forcing the MTX10 platform and software to be deployed.
- We are still waiting for an official Nortel price quotation for NBSS 10.1.2, to see what the financial impact will be and to determine whether we can be compliant with our existing LWW007 (MTX09) platform.
- 9. Retail availability of necessary consumer equipment
  - See 8 above.
- 10. Geographic scope of network infrastructure deployment
  - No TTY deployment has been done as of March 31, 2002.

Respectfully submitted,

South Central Utah Telephone Association, Inc.

вy:

General Manager, Treasurer & CEO

Dated: April 15, 2002